What is claimed is:

1. A method of detecting a random access channel preamble in a received uplink signal, comprising:

spatially processing and temporally processing an uplink signal received at one or more receive antennas and containing data related to a random access channel preamble to detect the random access channel preamble.

2. The method of claim 1, wherein the received uplink signal is subject to spatial processing prior to temporally processing the spatially processed signal.

3. The method of claim, wherein the received uplink signal is subject to temporal correlation prior to spatial processing of the temporally correlated signal.

4. The method of claim 1, wherein the received uplink signal includes information related to one or more of an amplitude of the uplink signal transmitted from a given user, a user-specific preamble signature sequence of the given user and a cell-specific scrambling code.

5. The method of claim 4, wherein

the received uplink signal further includes a channel coefficient of a specified path for a given receive antenna, time delay of the specified path for the given user and a complex Gaussian noise component, and

the channel coefficient represents a beam formed by the given receive antenna in a given direction.

6. The method of claim 1, wherein spatial processing includes multiplying the received uplink signal by a weight vector .

7. The method of claim 6, wherein the weight vector is a function of a direction of the angle of arrival of the uplink signal and the number of receive antennas receiving the uplink signal.

8. The method of claim 1, wherein the one or more received antennas are configured as one of a single antenna, a pair a widely spaced antennas, a clustered linear array and a uniform linear array.

9. A method of determining a best cell portion for communicating with a user, the best cell portion being a portion of a cell where a received uplink signal from the user has a highest signal to interference ratio, comprising:

subjecting an uplink signal from a user that is received at one or more receive antennas and containing data related to a random access channel preamble to spatial processing and temporal processing to detect a random access channel preamble, the detected random access channel preamble indicative of the best cell portion for communicating with the user.

10. A method of detecting a random access channel preamble in a communication system, comprising:

spatially processing an uplink signal received at one or more receive antennas and containing data related to a random access channel preamble to output a spatially processed signal based at least on angle of arrival of the uplink signal; and

temporally processing the spatially processed signal to detect the random access channel preamble component.

11. The method of claim 10, wherein spatial processing includes multiplying the received uplink signal by a weight vector that is a function of at least a direction of the angle of arrival of the uplink signal and the number of receive antennas receiving the uplink signal to determine the spatially processed signal.

12. The method of claim 11, wherein temporally processing of the spatially processed signal includes:

subjecting the spatially processed signal to temporal correlation to output at least one subcorrelated signal that includes data related to one or more random access channel preamble signatures of a user, a channel coefficient representing a beam

formed by the given receive antenna in a given direction toward the user, and transmitted chip energy of the preamble signatures;

calculating a decision statistic from the subcorrelated signal;

comparing the calculated decision statistic to a given threshold; and

detecting a random access channel preamble if the decision statistic equals or exceeds the given threshold.

13. The method of claim 10, wherein spatial processing of the received uplink signal is performed using a direct implementation of spatial processing, using multiplication by weight vector and accumulation.

14. The method of claim 10, wherein spatial processing of the received uplink signal is performed using a Fast Fourier Transform (FFT) implementation.

15. An arrangement for detecting a random access channel preamble in a communication system, comprising:

spatial processing means for spatially processing a uplink signal received at one or more receive antennas and containing data related to a random access channel preamble to output a spatially processed signal based at least on angle of arrival of the uplink signal; and

temporal processing means for temporally processing the spatially processed signal to detect the random access channel preamble component.

16. A method of detecting a random access channel preamble in a communication system, comprising:

subjecting an uplink signal received at one or more receive antennas and containing data related to a random access channel preamble to temporal correlation to output a subcorrelated signal based at least on angle of arrival of the uplink signal; and

spatially processing the subcorrelated signal to output a spatially processed signal;

determining a decision statistic from the spatially processed signal;

comparing the decision statistic to a given threshold; and

detecting a random access channel preamble if the decision statistic equals or exceeds the given threshold.

17. The method of claim 16, wherein spatial processing includes multiplying the received uplink signal by a weight vector that is a function of at least a direction of the angle of arrival of the uplink signal and the number of receive antennas receiving the uplink signal to determine the spatially processed signal.

18. The method of claim 16, wherein the subcorrelated signal includes data related to one or more random access channel preamble signatures of a user, a channel coefficient representing a beam formed by the given receive antenna in a given direction toward the user, and transmitted chip energy of the preamble signatures;

19. The method of claim 16, wherein spatial processing of the received uplink signal is performed using a direct implementation of spatial processing, using multiplication by weight vector and accumulation.

20. The method of claim 16, wherein spatial processing of the received uplink signal is performed using a Fast Fourier Transform (FFT) implementation.

21. An arrangement for detecting a random access channel preamble in a communication system, comprising:

a temporal correlation block for subjecting an uplink signal received at one or more receive antennas and containing data related to a random access channel preamble to temporal correlation to output a subcorrelated signal based at least on angle of arrival of the uplink signal; and

a spatial processing block for spatially processing the subcorrelated signal into a spatially processed signal, determining a decision statistic from the spatially processed signal, comparing the decision statistic to a given threshold, and detecting a random access channel preamble if the decision statistic equals or exceeds the given threshold.